

**CLAIMS**

1. Method of accessing a packet mode network in order to establish a connection across the network between a user terminal and a server of a service provider using one specific connection mode from a plurality of different connection modes supported by the network, comprising the steps of:

- identifying the specific connection mode on the basis of data transmitted by the user terminal;

- depending on the specific connection mode, selecting at least one service access server from a plurality of service access servers such that the selected service access server is compatible with the specific connection mode;

- transmitting at least one accounting message associated with the connection to the selected service access server.

2. Method as claimed in claim 1, further comprising the step of transmitting authentication messages associated with the connection to the selected service access server.

3. Method as claimed in one of claims 1 and 2, wherein each connection mode is associated with one or more respective services.

4. Method as claimed in one of the preceding claims, characterized in that it is implemented within a network access server.

5. Packet mode network access server for establishing a connection across the network between a user terminal and a server of a service provider using one specific connection mode of a plurality of different connection modes supported by the network, comprising:

- means for identifying the specific connection mode on the basis of

data transmitted by the user terminal;

- depending on the specific connection mode, means for selecting at least one service access server from a plurality of service access servers such that the selected service access server is compatible with the specific connection mode;

- means for transmitting at least one call accounting message to the selected service access server.

6. Server as claimed in claim 5, further comprising means for transmitting authentication messages associated with the connection to the selected service access server.

7. Server as claimed in one of claims 5 or 6, wherein each connection mode is associated with one or more respective services.

8. System comprising a packet mode network, at least one user terminal and at least one server of a service provider, a plurality of service access servers each compatible with at least one connection mode, and at least one network access server as claimed in one of claims 6 to 8 for establishing a connection across the network between the user terminal and the server of the service provider.

9. System as claimed in claim 8, further comprising an access network to which the user terminal is connected and which is inter-connected with the packet mode network by the network access server.

10. System as claimed in any one of claims 8 or 9, wherein the packet mode network is an IP network.

11. System as claimed in any one of claims 8 to 10, wherein the packet mode network is a backbone network.

12. System as claimed in any one of claims 8 to 11, wherein the  
5 service access servers are RADIUS servers.